



The examination is being carried out on the **following application documents:**

Text for the Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR LI

**Description, pages:**

1-15 as originally filed

**Claims, No.:**

1-16 as originally filed

**Drawings, sheets:**

1/1 as originally filed

1) The present application relates to compositions against protista (ie. fungi, bacteria and algae), which comprise an active component and a wettable or water-insoluble or difficultly water-soluble polymer, which provides for sustained release of the active.

2) The following documents may be referred to in the present procedure:

- D1: US-A-5 006 267 (VAUGHN WALTER L ET AL) 9 April 1991 (1991-04-09)
- D2: EP-A-0 733 304 (KODAK LTD ;EASTMAN KODAK CO (US)) 25 September 1996 (1996-09-25)
- D3: US-A-4 983 389 (LEVY RICHARD) 8 January 1991 (1991-01-08)
- D4: US-A-4 400 374 (CARDARELLI NATHAN F) 23 August 1983 (1983-08-23)
- D5: DD 149 302 A (MOELLER FRIEDRICH WILHELM;NAUMANN JUTTA; THUST ULF; TRAUTNER KURT; KOC) 8 July 1981 (1981-07-08)
- D6: EP-A-0 845 480 (KURARAY CO) 3 June 1998 (1998-06-03)



The following documents are cited by the examiner (see the Guidelines, C-VI, 8.9). Copies of the documents are annexed to the communication and the numbering will be adhered to in the rest of the procedure:

D7: JP-A-11246309

D8: JP-A-6001701

- 3) D1 describes biocidal filters wherein a biocidal agent is incorporated into a water-insoluble polymer (see col.2, line 18-col.3, line 10 and claims). Thus the subject matter of claims 1-5 and 8-16 is neither novel nor inventive (Art.54 and 56 EPC).

D2 describes biocidal materials having a biocide and a hydrophobic polymer (see claims; page 5, line 57-page 6, line 5). Thus the subject matter of claims 1-5 and 8-16 is neither novel nor inventive.

D3 describes controlled release herbicidal or pesticidal compositions comprising certain superabsorbent polymers and active agents (see claims). Thus the subject matter of claims 1-5 and 12-16 is neither novel nor inventive.

D4 describes polymeric controlled release systems for pesticides (see claims 21 and 24). Thus the subject matter of claims 1-5 and 12-16 is neither novel nor inventive.

D5 describes controlled release systems for activity against algae, bacteria and fungi in water systems, comprising vinyl chloride polymer and active agents (see claims). Thus the subject matter of claims 1-3, 8, 9 and 12-16 is neither novel nor inventive.

D7 discloses a sustained release slime-control composition comprising polyvinylalcohol, bactericide, and other additives. Thus the subject matter of claims 1-10, 12-14 is neither novel nor inventive.

D8 discloses compositions for controlling microorganisms comprising a fibrous substance such as polyvinyl alcohol and a higher unsaturated fatty acid. Thus the



subject matter of claims 1-7 is neither novel nor inventive.

- 4) The applicant is requested to indicate in his reply the basis of any amendments made to the claims, and explain the significance thereof in terms of novelty and inventive step.

To meet the requirements of Rule 27(1)(b) EPC, the documents D1 to D5, D7 and D8 should be identified in the description and the relevant background art disclosed therein should be briefly discussed.

On page 15 it is stated that all references cited should be "hereby incorporated by reference". These documents (certainly not all of them) do not appear to be essential to the performance of the invention as required by Article 83 EPC. Thus this phrase should be deleted, unless any of the subject matters are indeed considered to be essential; in which case they should each be incorporated expressly in the description (see Guidelines C-II, 4.18).

The vague and imprecise statement in the description on page 15 regarding "all modifications and equivalents..." implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity of the claims (Article 84 EPC) when used to interpret them (see the Guidelines, C-III, 4.3a). This statement should therefore be amended to remove this inconsistency.

3/6 (1/4 PAJ) - (C) PAJ / JPO

PN - JP11246309 A 19990914

PA - SANKYO CO LTD; RAILWAY TECHNICAL RES INST

I - A01N33/12 ; A01N25/02 ; A01N25/10 ; A01N59/20 ; C02F1/50 ; C02F1/50 ;  
C02F1/50 ; C02F1/50 ; C02F1/50

TI - SUSTAINED RELEASE SLIME CONTROL COMPOSITION

AB - PROBLEM TO BE SOLVED: To obtain the subject composition capable of inhibiting the proliferation of iron bacteria, etc., and the generation of slimes for long periods by compounding an antimicrobial component, polyvinyl alcohol, a higher fatty acid and one or more kinds of additives selected from polyethylene glycol and neutral inorganic salts.

- SOLUTION: This composition comprises (A) 20-60 wt.% of an antimicrobial component, (B) 1-25 wt.% of polyvinyl alcohol preferably having a polymerization degree of 100-2,000 and a saponification degree of 70-90 mol.%, (C) 1-50 wt.% of a higher fatty acid (for example, hardened castor oil), and one or more kinds of additives selected from (D) 15-60 wt.% of polyethylene glycol (for example, polyethylene glycol 4,000) and (E) 1-20 wt.% of neutral inorganic salts (for example, sodium chloride). The component A is preferably benzethonium chloride, cupric sulfate, cupric terephthalate, a compound of the formula (R<1> and R<2> are each a 5-12C alkyl; X is a halogen), etc., more preferably dimethyldidecylammonium chloride.

1/6 (1/2 WPI) - (C) WPI / DERWENT

AN - 1999-566385 [48]

AP - JP19980054721 19980306

PR - JP19980054721 19980306

TI - Sustained-release slime control composition - useful for water collecting pipes provided in undersea tunnels

IW - SUSTAINED RELEASE SLIME CONTROL COMPOSITION USEFUL WATER COLLECT PIPE

UNDERSEA TUNNEL

PA - (SANY) SANKYO CO LTD

- (JAPN) ZH TETSUDO SOGO GIJUTSU KENKYUSHO

PN - JP11246309 A 19990914 DW199948 A01N33/12 009pp

IC - A01N25/02 ; A01N25/10 ; A01N33/12 ; A01N59/20 ; C02F1/50

AB - JP11246309 A sustained-release slime control composition comprises a bactericidal active ingredient, polyvinyl alcohol, a higher fatty acid and one or more additives selected from polyethylene glycol and an inorganic neutral salt.

- USE - The sustained release slime control composition is particularly useful for water collecting pipes provided in e.g. undersea tunnels.

- ADVANTAGES - The composition of the present invention can effectively control the growth of sulphate reducing bacteria, iron bacteria and the generation of slime thereby for a long time.

- (Dwg.0/0)

2/6 (2/2 WPI) - (C) WPI / DERWENT

AN - 1994-085963 [11]

AP - JP19920181908 19920615

PR - JP19920181908 19920615

TI - Compsn. for controlling red tide plankton - comprises fibrous substance e.g. sodium, alginate, to which higher unsatd. fatty acid (-contg. oil) is fixed

IW - COMPOSITION CONTROL RED TIDE PLANKTON COMPRISE FIBRE SUBSTANCE SODIUM

ALGINATE HIGH UNSATURATED FATTY ACID CONTAIN OIL FIX

PA - (AGEN ) AGENCY OF IND SCI & TECHNOLOGY

PN - JP6001701 A 19940111 DW199411 A01N37/06 005pp

IC - A01N37/06 ; C02F1/00 ; C09K3/00

AB - J06001701 Compsn. for controlling red tide comprising a fibrous substance to which a higher unsatd. fatty acid or a mixed oil contg. a higher unsatd. fatty acid is fixed.

- Also claimed is a method for controlling red tide which comprises contacting a fibrous substance as above with red tide to inactivate or kill planktons of red tide, and recovering the fibrous substance.
- The mixed oil contains pref. greater than 5 wt.% of a higher unsatd. fatty acid. The higher unsatd. fatty acid is selected from oleic acid, linolic acid, linolenic acid, octadecatetraenic acid, arachidonic acid, eicosapentaenoic acid and docosahexaenoic acid, and its content is pref. 1-100,000 ppm. based on wt. of the fibrous substance. The fibrous substance is selected from sodium alginate, calcium alginate, carboxymethylcellulose and polyvinyl alcohol.
- USE/ADVANTAGE - Red tide can be controlled effectively and economically without adverse influence on marine prods. and other oceanic organisms.
- In an example, a chloro oleate (1.0g) and sodium alginate fibre (1.0g) were mixed and heated for 60 minutes at 105 deg.C.. After removing excess chloro:oleate and washing, a compsn. (1) for controlling red tide (1.6g) was produced (content of chloro oleate = 0.6g/g-(1)). (1) (1.1mg) was added to a culture soln. (100ml) of logarithmic phase of red tide plankton, *Chattonella antiqua*. After leaving it for 5 minutes at room temp., destruction of cell membranes of the plankton was found.(Dwg.0/0)